MEETING MINUTES

Subject: North Slope & Sodium Dichromate Sampling Plan Comments

TO: Distribution BUILDING: 450 Hills

FROM: W. L. Johnson WLJ CHAIRMAN: W. L. Johnson

Dept-Operation-Component	Area	Shift	Meeting Date	Number Attending
Env. Restoration Engr.	RCHN	Day	September 9, 1992	10

P. Beaver	B5-01
D. Goswami	fax
F. W. Gustafson	H4-55
C. E. Heiden	H4-55
G. C. Henckel	H4-55
J. G. Lucas	H4-55
R. C. Roos	H4-55
J. T Stewart	A5-20
R. K. Stewart*	A5-19
P. J. Valcich	H4-55
EDMC	H4-22
ERAG Route	
Field File Custodian	H4-55
WLJ File/LB	

*Attendees

A meeting was held to resolve comments on the Sodium Dichromate Sampling Plan and the North Slope Military Landfill Sampling Plan. Draft comments dispositions were provided for discussion (attached). WHC agreed to provide revised documents, based on these comment dispositions, to the regulators for approval.

Attachments:
1. Comment Dispositions for North Slope Sampling Plan
2. Comment Dispositions for Sodium Dichromate Sampling Plan

COMMENT DISPOSITION FOR ECOLOGY COMMENTS
NORTH SLOPE ERA PROJECT PLAN/SAMPLING PLAN

1) General Comment:

More detailed sampling information will be inserted in the sampling plans. The purpose of the project plan is to describe the general ERA implementation strategy. While regulatory approval of this document is not required, it is necessary that they agree with the implementation approach described in the document.

The actual methods of sampling, equipment decontamination and waste management activities will reference the procedures described in the EII manual (WHC-CM-7-7). A site specific waste control plan (per EII 4.3) is being drafted as discussed at earlier interface meetings. An OVM meter will be used in screening for volatile contaminants when sampling.

No radiological surveys have been conducted on the North Slope as this area was not used in the production of plutonium etc.. The area was only used for the military defense of the Hanford Site.

2) Section 1.1

The selection of the three landfills was based upon known military activities which the landfills supported. The Nike missile sites are considered to be the biggest contributor to possible environmental contamination as they used the largest amount of potentially hazardous materials. For this reason two of the landfills are located in the vicinity of the Nike missile sites H-83-L and H-06-L. The landfill as H-06-L was also used in support of an anti-aircraft positions (PSN 07/10). An additional anti-aircraft landfill was chosen to determine the contribution of potentially hazardous materials disposed of during the operation of an anti-aircraft site.

The results of the geophysical surveys will be made available ASAP. The exact sampling locations will be based upon the results of this survey. Sample locations will be placed next to significant trench locations within each landfill.

3) Section 1.1

The number of samples to be taken was based upon the preliminary results of the geophysical survey. More sample locations may be selected, however sampling of every sub-surface anomaly is not practical. Six samples/landfill will be sufficient in determining if significant quantities of hazardous materials were disposed of.

4) Section 3.3

As noted earlier, this document was is draft form when provided for your review. The document has been grammatically reviewed etc.. The format of this document is consistent with regulatory approved descriptions of work for other 100 area work. Title of section will be changed as requested.

5) Section 8.0

The following paragraph will be added to section 8.0.

"Unforeseeable major changes to this sampling plan, such as analyzing for different parameters of using different analytical methods will be submitted on the Project Change Form (Attachment #). Copies will be submitted to the regulatory agencies and appropriate field personnel within 10 working days of the change. Foreseeable changes will be submitted to the regulators for approval or review prior to deviating from the sampling plan.

Comments on North Slope Expedited Action Project Plan

1. General:

The document must be rewritten to describe actual methods of sampling, schedule, and details on sampling procedure/protocol. Location of each site must be identified with maps. The future report should include data obtained from GPR. Criteria for when a sample will be taken and the minimum number of samples that will be taken at each location with a tentative time schedule must be provided for each site.

The description must also include the actual methods of sampling, decontamination procedures, and methods of handling the waste generated during this sampling event. Since no volatiles are being sampled, we must conduct field screening using OVM for verification. Also, any previous information on radiation survey/radioactivity, must be mentioned in this project plan since Hanford site is basically a nuclear site.

Since this document will be rewritten, no such specific comments are presented at this time. However, the following must be incorporated in the future text.

2. Section 1.1

Criteria for identifying only 3 representative landfills must be provided.

3. Section 3.2

Reason for collecting only 24 samples must be provided.

4. Section 3.3

The words just reference eieio manual should be removed. In addition, the title of this section should be changed to HEIS Sample Labeling as this is all the section addresses.

5. Section 8.0

Major changes to the description of work should require regulatory concurrence.

DRAFT

Comment Disposition for the Sodium Dichromate Project Plan

Reference: Letter, *Sodium Dichromate Barrel Disposal Landfill Expedited Response Action (ERA) Project Plan*, Washington State Department of Ecology to U. S. Department of Energy, August 21, 1992.

1. Section 1.2: page 1, 2nd paragraph

The Text identifies only one primary assumption in developing an unofficial site description. What are the other primary, as well as secondary assumptions? This needs to be incorporated.

Response:

The primary assumption was developed by PNL during their 1988 Hazard Ranking System Evaluation of CERCLA Inactive Waste Sites at Hanford (PNL-6456, Vol. 1 - Evaluation Methods and Results). There is no documentation showing this assumption process.

The second paragraph is revised as follows:

The landfill is the only waste site identified in the 100-IU-4 Operable Unit (Figure 1). The Hazard Ranking System Evaluation of CERCLA Inactive Waste Sites at Hanford (PNL 1988) assumption is that the crushed barrels contained 1% residual sodium dichromate at burial time. Based on visual inspection of the surface barrel debris, burial depth appears to be shallow (Figure 2). At present, the crushed drums could be considered empty per the Washington Administrative Code (WAC) regulations (WAC 173-303).

2. Section 1.2: page 1, 4th paragraph

The last sentence of this paragraph should include the information obtained from various surveys, which concludes that the site has been used for a landfill; and four major buried waste sites have been discovered from EMI and GPR data (as per ref. Section 2.3.2; page 12).

Response:

This comment refers to paragraph 3 not 4. This section is a background report. The EMI and GPR data was developed from Characterization activities and should remain in Section 2.3.2.

The last sentence is revised as follows:

The site's surface contains debris that indicate that the area may have been used as a general landfill.

3. Section 1.2: page 1, 6th paragraph

Results of the earlier radiation survey need to be incorporated.

Response:

A survey reference will be added.

Revise the 6th paragraph as follows:

Site radiation surveys (EGG 1988) have not detected any elevated surface radioactivity hazards.

Add to References:

EGG, 1988, *An Aerial Radiological Survey of the Hanford Site and Surrounding Area*, EGG-10617-1062, EG&G Energy Measurement, Richland, Washington.

4. Section 1.2, page 1, 7th paragraph

If available, the text should offer explanations on the bare patches observed in the Hanford area.

Response:

The bare patches appear to be a natural phenomena. Discussions with WHC botanists indicate that these patches occur throughout the Northwestern states. There is no known study that explains these patches.

5. Figure 2: page 3

The debris types found at "W" and "X" are not correctly shown in the figure. This needs to be corrected.

Response:

Figure 2 will be corrected.

Delete homestead symbol from "W".
Add wire symbol to "W" and "X".

6. Section 1.3: page 5, 1st paragraph

The statement "non-time critical" should be removed. The ERAs goal is to expedite the clean-up action of these sites as soon as possible.

Response:

ERAs are divided into two categories: time critical and non-time critical. This distinction is necessary to identify the proper project schedule path. A time critical ERA requires cleanup work to start immediately due to existing hazardous conditions presenting an immediate threat to the public and/or environment.

Could Remove entire

7. Section 2.2: page 7, last paragraph

This section should elaborate how the various anomalies found will be resurveyed for better definition of these sites. It should include the detailed methods of survey, the types of survey, grid patterns, etc., that will be implemented in this process. The initial reconnaissance grid pattern of 20 to 20 ft. for GPR as well as EMI is very wide considering the size of the barrel and other debris. It is quite likely that more anomalies of smaller size are present at the site. A future survey program must incorporate these deficiencies.

Response:

This paragraph will be revised as follows:

The initial reconnaissance level GPR and EMI surveys had line spacing of 20 to 40 ft. In these surveys, metallic surface debris correlates well with the many GPR and EMI anomalies (Table 1, and Figures 2, 4 through 7). The surveys found several anomalous subsurface areas that did not correlate with the observed surface features. These areas could represent buried waste sites. After surface debris removal, the anomalies will be resurveyed to better define each location.

The new surveys will cover just the significant anomalies area. This is from N900 to N1300 and E500 to E800. The line spacing will be 5 to 10 ft. Two (2) 50 ft. sample trenches will further define the anomalies descriptions. These survey results will be reported in the ERA Proposal.

8. Figure 6: Page 10

Figure 6. must mention the grid interval used in obtaining the data.

Response:

The grid interval (20 X 40 ft.) will be added to Figure 6.

9. Section 2.3.2: page 12

The text should mention that the details of the sampling plan and field activities would be reported separately.

Response:

The Section 2.0 Introduction will be revised as follows:

The ERA characterization objective is to generate data to determine if any environmental hazards exist, their nature, and extent. The data generated will be used in the Sodium Dichromate ERA Proposal document.

Representative and specific locations will be investigated at the site. Site characterization activities will consist of surface debris collection, nonintrusive ground-penetrating radar (GPR) and electromagnetic induction (EMI) surveys, and soil sampling.

10. Section 3.0: page 12

The text describes that this section would provide information on screening of remedial action alternatives based on certain preliminary models. However, nothing was mentioned regarding the alternatives and model. The entire text needs to be modified accordingly.

Response:

The section 3.1 title will be corrected as follows:

3.1 PRELIMINARY MODEL

The second paragraph is revised as follows:

The initial remedial action alternatives are:

11. Section 3.2: page 13

Remove the first bullet since some actions were already taken (eg. removal surface debris).

Reply:

The approved removal of surface debris is part of the characterization activities. This was done to generate useful characterization data. This data in turn is used to evaluate the remedial action alternatives. The characterization activities are a separate action from the remedial action. The characterization activities (i.e. verifying the no-action alternative) can become the chosen remedial action, but does not become a fact until an Action Memorandum is issued.

12. Section 7.0: page 15

Both regulatory agencies are of the opinion that the project schedule shown in Figure 8. is to long and is not acceptable. The project should be completed by the end of 1993 or by the beginning of 1994.

Response:

The schedule is compressed until Project Implementation. The Implementation phase could be shortened depending on the Action Memorandum. If the Action Memorandum requires no further action, the ERA could be closed out as early as March 1993. All current sample results indicate there is no Cr+6 present and the total chrome levels are in the background range. It is anticipated that the test trenches will have the same sample results.

13. Attachment 1: Sampling and Analysis Plan:

This part of the document must be rewritten to describe actual methods of sampling, schedule, and details on sampling procedures/protocol. Location of each site must be identified with maps. Criteria for when a sample will be taken and the minimum number of samples must be provided. The description must also include the actual methods of sampling, decontamination procedures, and methods of handling the waste generated during this sampling event. Field screening of volatiles using OVA must be used at the site.

Since the sample analysis plan needs to be rewritten, no such specific comments are presented at this time.

Response:

The Environmental Investigations and Site Characterization Manual (WHC-CM-7-7) contains the sampling procedures, sampling methods, and decontamination procedures. These are referenced in the plan as EII's.

Section 3.4 is revised as follows:

3.4 SAMPLE COLLECTION

Soil sample collection will include nonintrusive surface sampling and two test trenches. Ground-penetrating radar (GPR) and electromagnetic induction (EMI) surveys per II 11.2 Geophysical Survey Work (WHC 1988b), and a visual inspection for surface debris will be completed to identify sample locations. Sampling will be done to support the ERA Proposal document. Sample locations are shown in Table 1-1 and Figure 1-1. Field samples will be screened with an Organic Volatile Analyzer.

The field team leader will record all field findings, sampling activities, and locations in accordance with EII 1.5, Field Logbook (WHC 1988b).

3.4.1 Nonintrusive Surface Sampling

Nonintrusive surface sampling depth limits for collecting soil samples is 1 ft or less. Sample locations are shown on Table 1-1 and Figure 1-1. Additional sample locations maybe determined by the field team leader.

Sample collection will use separate decontaminated hand tools (i.e., spoons, trowels) from each sample point shall be accomplished per EII 5.2, Surface Sampling Method (WHC 1988b).

Following collection, samples will be labeled, packaged, and sent to a qualified laboratory for Total Chrome analysis. All samples sent for qualified laboratory analysis will be labeled and tracked using Hanford Environmental Information System (HEIS) identification numbers be accomplished per EII 5.10, Obtaining Sample Identification Numbers and Accessing HEIS Data (WHC 1988b). Sample packaging is done per EII 5.11, Sample Packaging and Shipping (WHC 1988b).

A chain of custody starts and is maintained after the sample is collected. The chain of custody is done per EII 5.1 Chain of Custody (WHC 1988b).

13. Continued

Table 1-1. Sample Location Table.

SAMPLE LOCATION		SAMPLE TYPE
Site B:	1 Barrel	Field Screening Cr+6
Site D:	2 Barrels (Composite)	Field Screening Cr+6
Site E:	1 Barrel	Field Screening Cr+6
Site I:	2 Barrels (Composite)	Field Screening Cr+6
Site K & L:	3 Barrels (Composite)	Field Screening Cr+6
Site O:	5 Barrels (Composite)	Field Screening Cr+6
Site P:	2 Barrels (Composite)	Field Screening Cr+6 Offsite Lab. (Included duplicate and split)
Site Q:	5 Barrels (Composite)	Field Screening Cr+6
Site R:	2 Barrels (Composite)	Field Screening Cr+6
Site S:	2 Barrels (Composite)	Field Screening Cr+6
Site T:	3 Barrels (Composite)	Field Screening Cr+6
Site W:	1 Barrel	Field Screening Cr+6
Site X:	1 Barrel	Field Screening Cr+6
West End of Monitoring Well Pad	4 Barrels (Composite)	Field Screening Cr+6
50 ft. west of grid point E500 N900		BacKground (Offsite Lab) (Duplicate and Split)
50 ft. west of grid point E500 N1500		Background (Offsite lab)
50 ft. north of grid point E640 N2020		Background (Offsite Lab)
50 ft. east of grid point 800 N1500		Background (Offsite lab)

Note: All offsite Lab test for Total Chrome levels.

TRENCH LOCATION	SAMPLE
Trench no. 1 From N1000 E610 To N1050 E610	Minimum of 5 Field Screening Samples per Trench.
Trench no. 2 From N1220 E700 To N1220 E750	Minimum of 2 Offsite Lab. Samples per Trench with Duplicate and Split.

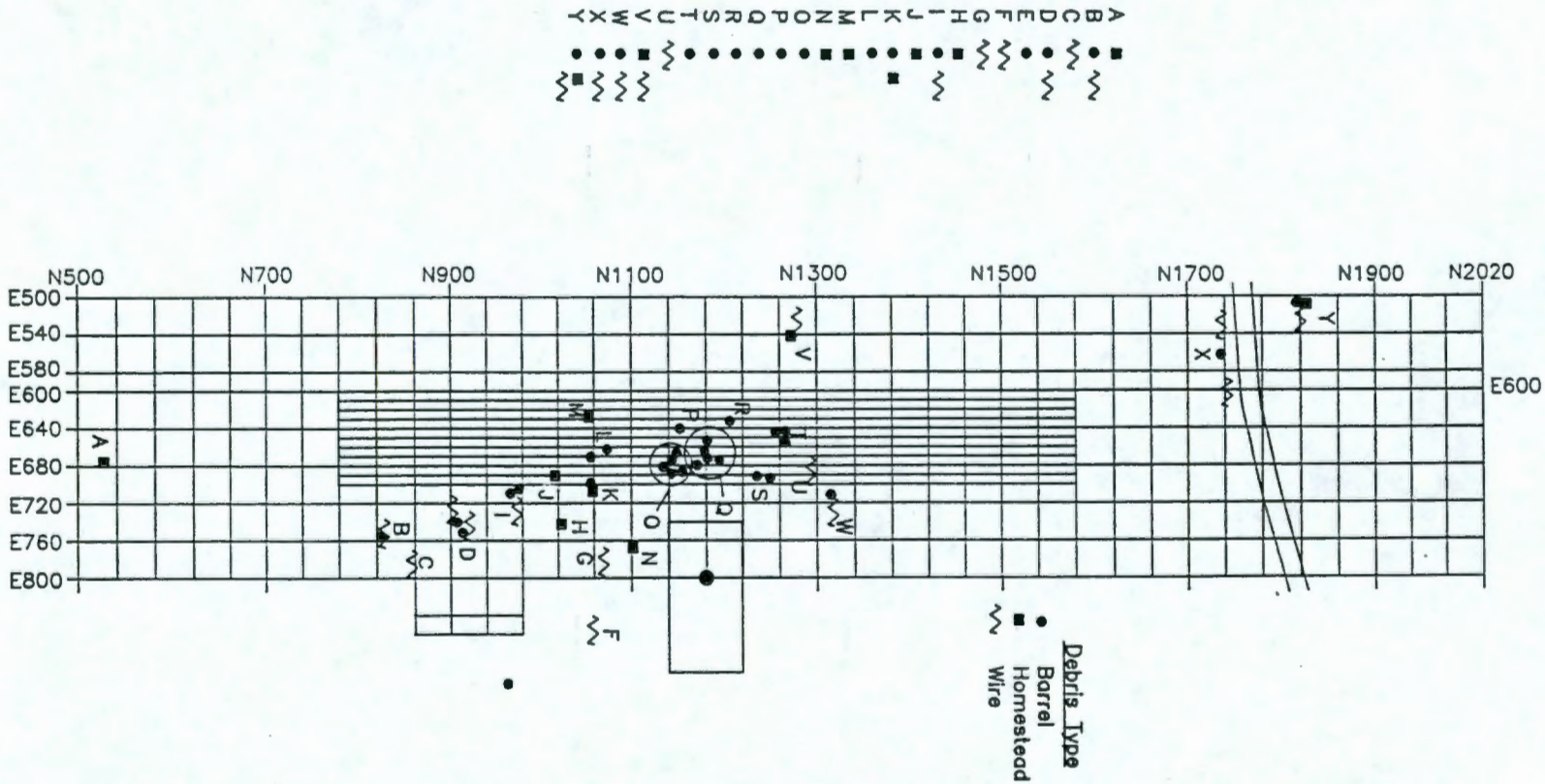

Figure 1-1. Site Grid

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13. Continued

3.4.2 Test Trenches

Test trenches will allow access for soil sampling and characterization at depths greater than 1 ft. GPR and EMI survey results indicate 3 large anomalies (Figure 1-1). Two test trenches will be dug by backhoe. Each trench will be about 50 ft. long, up to 20 ft deep, and with enough lateral extent to safely achieve the required depth. The trenches will be constructed and backfilled in compliance with EII 5.2, Soil and Sediment Sampling, Appendix F, (WHC 1988b).

Due to the degree of unknown conditions prior to conducting excavation activities, the identified test trenches sampling parameters are guidelines. As excavation progresses, excavation

activity findings may require changes. Soil at the last debris layer base encountered will be field screened for hexavalent chromium and radiation. As a minimum, two samples will be collected from each trench base. Additional sample collections will depend on the following criteria:

- Discolored soil
- Field team leader evaluation of conditions.

Sample collection will be from approximately the center of the backhoe bucket load before placing the material on the ground. Sample collection and subsequent handling will follow Section 3.4.1.

14. Attachment 6: Community relations Plan; page 6-1

There is no community relations plan attached to the document.

Response:

The plan is contained in the referenced document, i.e. Community Relations Plan for the Hanford Federal Facility Agreement and Consent Order (Ecology 1990). It is not the intent of this document to duplicate referenced documents.